

Amendments to the Specification

Please delete paragraph [0066], which appears in the specification at page 23, lines 1-25, and substitute the following paragraph [0066] in place thereof.

[0066] With respect to FIGS. 4 and 5, an example of preferred resin transfer molding operation using the reusable vacuum bag 23 of this invention is described. The bag 23 can be made of a 3.5 oz/yd² plain weave, woven Kevlar® fabric with a multi-layered PTFE/FEP coated resin film thermally bonded to, and/or melted into, one or both surfaces of the woven fabric. This base fabric is a Saint-Gobain Performance Plastics, Merrimack, New Hampshire, fabric style “X-22 Natural”, that we had developed for the prototype vacuum bags. This is just one of the many fabrics useful for this application. The resin and catalyst may be mixed just prior to introduction into the envelope formed between the vacuum bag 23 and the mold 72. The catalyst can include a conventional heat reactive or ambient temperature reactive catalyst or any conventional photoinitiator and/or photosensitizer, depending upon the dynamics of the thermosetting system. Alternatively, a melted thermoplastic material could be employed. The mold 72 can, for example, be a standard fiber glass boat hull mold. The vacuum bag 23 can include an injection pipe 70 and vacuum pipe 71 with known fittings for adhering to the bag surface. One or more mesh resin transfer veins 79 can be established, such as by a melt bond to the part facing side of the vacuum bag 23. Additionally, a plurality of nubs 61 (shown in FIG. 3) can be formed on the vacuum bag for assisting in resin flow and vapor transfer. The mold 72 can be prepared with a gel coat which is sprayed into the mold 72 and allowed to cure until it is not sticky to the touch. Pre-cut dry reinforcement fibers or layers ~~72~~ 78 can be placed into the mold 72 in the shape of the part to be made. The vacuum bag 23 is laid over the mold 72 and folded or generally conformed into the mold 72 and laid out around the flange area. Adhesive compound 75, such as “tacky tape”, is laid around the edges of the flanges and the input and output ports, and the vacuum bag 23 is adhered to the tape using standard vacuum bagging techniques.